



Micromem Technologies Inc.
Consolidated Financial Statements

For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States Dollars)

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Micromem Technologies Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Micromem Technologies Inc. (the Company) as of October 31, 2020 and 2019, and the related consolidated statements of operations and comprehensive loss, changes in equity, and cash flows for each of the years in the three year period ended October 31, 2020, and the related notes (collectively referred to as the consolidated financial statements).

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of October 31, 2020 and 2019, and the results of its consolidated operations and its consolidated cash flows for each of the years in the three year period ended October 31, 2020, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Material Uncertainty Related to Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Change in Accounting Principle

As discussed in Note 5(a) to the consolidated financial statements, the Company has changed its method of accounting for leases as of November 1, 2019 due to the adoption of IFRS 16.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Chartered Professional Accountants
Licensed Public Accountants
We have served as the Company's auditor since 2017
Toronto, Canada
February 12, 2021

Micromem Technologies Inc.
Consolidated Statements of Financial Position
As at October 31, 2020 and 2019
(Expressed in United States dollars)

	<u>Notes</u>	<u>2020</u>	<u>2019</u>
Assets			
Current			
Cash	20	\$ 191,479	\$ 46,056
Prepaid expenses and other receivables		25,421	14,751
Total current assets		216,900	60,807
Property and equipment	7	49,249	2,677
Patents	8	11,877	20,000
Total assets		\$ 278,026	\$ 83,484
Liabilities			
Current			
Trade payables and other liabilities	20(c)	\$ 767,949	\$ 997,632
Current lease liability	9	36,442	-
Convertible debentures	11,20	3,081,518	2,599,074
Derivative liabilities	11,20	533,562	765,425
Total current liabilities		4,419,471	4,362,131
Long-term lease liability	9	15,628	-
Long-term loan	10	30,269	-
Total liabilities		4,465,368	4,362,131
Shareholders' Deficiency			
Share capital	12	85,463,642	84,153,696
Contributed surplus		27,810,586	27,757,639
Equity component of convertible debentures	11	23,952	50,147
Accumulated deficit		(117,485,522)	(116,240,129)
Total shareholders' deficiency		(4,187,342)	(4,278,647)
Total liabilities and shareholders' deficiency		\$ 278,026	\$ 83,484
Going concern			
	2		
Contingencies			
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Subsequent events			
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The accompanying notes are an integral part of these consolidated financial statements.

Approved on behalf of the Board of Directors:

"Joseph Fuda"
Director

"Alex Dey"
Director

Micromem Technologies Inc.
Consolidated Statements of Operations and Comprehensive Loss
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars)

	<u>Notes</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Operating expenses				
General and administrative	16(a)	\$ 154,007	\$ 197,208	\$ 305,338
Professional, other fees and salaries	16(b)	462,124	441,981	747,280
Recovery of reserve for litigation costs	18(b)	(205,788)	-	-
Stock-based compensation	13	-	-	140,612
Development costs (recovery)		-	(41,546)	(130,069)
Travel and entertainment		23,903	52,568	101,496
Amortization of property and equipment	7	27,735	3,175	3,922
Amortization of patents	8	8,123	152,962	156,960
Impairment of patents	8	-	223,143	-
Foreign exchange gain	20(a)	1,447	(40,548)	(117,779)
Total operating expenses		<u>471,551</u>	<u>988,943</u>	<u>1,207,760</u>
Other expenses (income)				
Accretion expense	11	1,099,818	1,517,436	2,039,344
Convertible debt interest expense	11	441,369	496,172	504,778
Financing costs	11	35,500	72,476	40,414
Gain on revaluation of derivative liabilities	11	(771,920)	(343,436)	(1,094,718)
Loss on conversion of convertible debentures	11	96,484	101,919	63,852
Gain on extinguishment of convertible debentures	11	(127,409)	(646)	(399,191)
Total other (income) expenses		<u>773,842</u>	<u>1,843,921</u>	<u>1,154,479</u>
Net loss before income tax provision		(1,245,393)	(2,832,864)	(2,362,239)
Income tax provision	15	-	-	-
Total comprehensive loss		<u>\$ (1,245,393)</u>	<u>\$ (2,832,864)</u>	<u>\$ (2,362,239)</u>
Weighted average number of outstanding shares, basic and diluted				
	14	377,380,476	288,398,051	237,242,674
Basic and diluted loss per share	14	\$ -	\$ (0.01)	\$ (0.01)

The accompanying notes are an integral part of these consolidated financial statements.

Micromem Technologies Inc.
Consolidated Statements of Changes in Equity
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars)

	<u>Notes</u>	<u>Number of shares</u>	<u>Share capital</u>	<u>Contributed surplus</u>	<u>Equity component of convertible debentures</u>	<u>Accumulated deficit</u>	<u>Total</u>
Balance at November 1, 2017		228,562,711	\$80,198,194	\$ 27,360,676	\$ 62,050	\$ (111,045,026)	\$(3,424,106)
Private placements of shares for cash	12	14,739,272	866,200	-	-	-	866,200
Shares issued on settlement of accounts payable		79,765	13,379	-	-	-	13,379
Stock-based compensation		-	-	140,612	-	-	140,612
Convertible debentures converted into common shares	11	16,220,951	1,205,130	-	-	-	1,205,130
Expiry of convertible debenture conversion option		-	-	129,621	(129,621)	-	-
Renewal of convertible debentures		-	-	-	137,854	-	137,854
Net loss		-	-	-	-	(2,362,239)	(2,362,239)
Balance at October 31, 2018		259,602,699	\$82,282,903	\$ 27,630,909	\$ 70,283	\$ (113,407,265)	\$(3,423,170)
Private placements of shares for cash	12	4,961,059	212,968	-	-	-	212,968
Financing costs converted into common shares		350,000	21,000	-	-	-	21,000
Convertible debentures converted into common shares	11	82,038,963	1,636,825	-	-	-	1,636,825
Expiry of convertible debenture conversion option	11	-	-	126,730	(126,730)	-	-
Renewal of convertible debentures	11	-	-	-	106,594	-	106,594
Net loss		-	-	-	-	(2,832,864)	(2,832,864)
Balance at October 31, 2019		346,952,721	\$84,153,696	\$ 27,757,639	\$ 50,147	\$ (116,240,129)	\$(4,278,647)
Private placements of shares for cash	12	10,996,994	425,789	-	-	-	425,789
Convertible debentures converted into common shares	11	44,237,644	859,331	-	-	-	859,331
Expiry of convertible debenture conversion option	11	-	-	52,947	(52,947)	-	-
Renewal of convertible debentures	11	-	-	-	26,752	-	26,752
Shares issued on settlement of accounts payable		365,094	24,826	-	-	-	24,826
Net loss		-	-	-	-	(1,245,393)	(1,245,393)
Balance at October 31, 2020		<u>402,552,453</u>	<u>\$85,463,642</u>	<u>\$ 27,810,586</u>	<u>\$ 23,952</u>	<u>\$ (117,485,522)</u>	<u>\$(4,187,342)</u>

The accompanying notes are an integral part of these consolidated financial statements.

Micromem Technologies Inc.
Consolidated Statements of Cash Flows
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars)

	Notes	2020	2019	2018
Operating activities				
Net loss		\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Items not affecting cash:				
Amortization of property and equipment	7	27,735	3,175	3,922
Amortization of patents	8	8,123	152,962	156,960
Impairment of patents		-	223,143	-
Bad debt expense		-	-	10,000
Accretion expense	11,17	1,099,818	1,517,436	2,039,344
Accrued interest on convertible debentures	11,17	285,679	164,243	125,328
Convertible debenture interest converted	11,17	21,160	63,409	47,435
Loss on conversion of convertible debentures	11	96,484	101,919	63,852
Gain on revaluation of derivative liabilities	11,17	(771,920)	(343,436)	(1,094,718)
Gain on extinguishment of convertible debentures	11,17	(127,409)	(646)	(399,191)
Shares issued for financing costs	11,17	7,500	21,000	-
Stock-based compensation	13	-	-	140,612
Loss on disposal of property and equipment		-	5,000	220
Foreign exchange loss (gain)	20	78,004	(136,606)	(87,033)
		(520,219)	(1,061,265)	(1,355,508)
Net changes in non-cash working capital:				
Decrease in development costs receivable		-	81,841	324,016
Decrease (increase) in prepaid expenses and other receivables		(10,670)	1,980	33,582
Increase (decrease) in trade payables and other liabilities		(229,683)	(4,993)	(341,399)
Cash flows used in operating activities		(760,572)	(982,437)	(1,339,309)
Investing activity				
Purchase of property and equipment		-	-	(3,548)
Patents	8	-	-	(121,603)
Cash flows used in investing activity		-	-	(125,151)
Financing activities				
Repayment of lease liability	9	(11,423)	-	-
Proceeds from long-term debt	10	30,269	-	-
Private placements of shares for cash	12	425,789	212,968	866,200
Proceeds from issuance of convertible debentures	17	612,279	780,891	1,457,983
Repayments of convertible debentures	17	(150,920)	(172,198)	(662,080)
Cash flows provided by financing activities		905,995	821,661	1,662,103
Net change in cash		145,423	(160,776)	197,643
Cash - beginning of year		46,056	206,832	9,189
Cash - end of year		<u>\$ 191,479</u>	<u>\$ 46,056</u>	<u>\$ 206,832</u>
Supplemental cash flow information				
Interest paid (classified in operating activities)	9,11	\$ 155,690	\$ 353,214	\$ 322,930
Interest paid on non-convertible debt		\$ 8,081	\$ -	\$ -
Interest paid on lease liability	9	\$ 14,081	\$ -	\$ -
Income taxes paid	15	\$ -	\$ -	\$ -
Carrying amount of convertible debentures converted into common shares	17	\$ 762,847	\$ 1,636,825	\$ 1,205,130
Shares issued on settlement of accounts payable		\$ 24,826	\$ -	\$ 13,379

The accompanying notes are an integral part of these consolidated financial statements.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

1. Reporting entity and nature of business

Micromem Technologies Inc. ("Micromem" or the "Company") is incorporated under the laws of the Province of Ontario, Canada. Micromem is a publicly traded company with its head office located at 121 Richmond Street West, Suite 304, Toronto, Ontario, Canada. The Company's common shares are currently listed on the Canadian Securities Exchange under the trading symbol "MRM" and on the Over the Counter Venture Market under the trading symbol "MMTIF".

The Company develops, based upon proprietary technology, customized sensor applications for companies (referred to as "development partners") operating internationally in various industry segments. The Company has not generated commercial revenues through October 31, 2020 and is devoting substantially all its efforts to securing commercial revenue opportunities.

2. Going concern

These consolidated financial statements have been prepared with the assumption that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

There are material uncertainties related to conditions and events that cast significant doubt about the Company's ability to continue as a going concern and ultimately on the appropriateness of the use of the accounting principles applicable to a going concern. During the year ended October 31, 2020, the Company reported a net loss and comprehensive loss of \$1,245,393 (2019 - \$2,832,864, 2018 - \$2,362,239) and negative cash flow from operations of \$760,572 (2019 - \$982,437, 2018 - \$1,339,309). The Company's working capital deficiency as at October 31, 2020 was \$4,202,571 (2019 - \$4,301,324).

The Company's success depends on the profitable commercialization of its proprietary sensor technology. There is no assurance that the Company will be successful in the profitable commercialization of its technology. Based upon its current operating and financial plans, management of the Company believes that it will have sufficient access to financial resources to fund the Company's planned operations through fiscal 2021; however, the ability of the Company to continue as a going concern is dependent upon its ability to secure additional financing and/or profitably commercialize its technology. These consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the possible inability of the Company to continue as a going concern.

The COVID-19 pandemic creates additional risk for the Company if there is a prolonged industry slowdown in those sectors where the Company currently operates including the oil and gas sectors in particular. To date, the impact of the pandemic has resulted in the layoff of Company staff as of March 27, 2020. The Company has encountered delays in the commercial status plans of its technology with its primary customers. It secured a government backed loan of \$40,000 CDN (\$30,269 USD) which matures in December 2025 (Note 9) and received government wage subsidies of \$85,455 CDN (\$63,792 USD) (Note 16(b)(i)).

If the going concern assumption were not appropriate for these consolidated financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the statement of financial position classifications used; in such cases, these adjustments would be material.

3. Basis of presentation

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations issued by the IFRS Interpretations Committee ("IFRIC"). The Company applied, as of November 1, 2019, International Financial Reporting Standard ("IFRS") 16 Leases and IFRS Interpretations Committee ("IFRIC") 23 Uncertainty over income tax treatments. The nature and effect of those changes are disclosed in Note 4. The Company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

These consolidated financial statements were authorized for issuance and release by the Company's Board of Directors on February 12, 2021.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

3. Basis of presentation (continued)

(a) Basis of consolidation

These consolidated financial statements include the accounts of Micromem Technologies Inc. and its subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation. The Company applies the acquisition method to account for business combinations. Acquisition-related costs are expensed as incurred.

The Company's wholly-owned subsidiaries include:

- (i) Micromem Applied Sensors Technology Inc. ("MAST") which was incorporated in November 2007 and is domiciled in Delaware, United States. MAST has previously had the primary responsibility for the exploitation of the Company's technologies in conjunction with various strategic partners and customers.
- (ii) 7070179 Canada Inc. which was incorporated in October 2008 under the Canada Business Corporations Act in Ontario, Canada. The Company has assigned to this entity its rights, title and interests in certain patents, which it previously held, directly, in exchange for common shares of this entity.

(iii) Inactive subsidiaries	Domiciled in
Memtech International Inc.	Bahamas
Memtech International (USA) Inc., Pageant Technologies (USA) Inc.	United States
Pageant Technologies Inc., Micromem Holdings (Barbados) Inc.	Barbados

(b) Basis of measurement

These consolidated financial statements have been prepared on the historical cost basis, except for financial instruments designated at fair value through profit and loss which are measured at their fair value.

(c) Functional and presentation currency

These consolidated financial statements are presented in United States dollars ("USD"), which is the functional currency of the Company and all of its subsidiaries.

(d) Use of estimates and judgments

The preparation of these consolidated financial statements in conformity with IFRSs requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. These estimates are reviewed periodically and adjustments are made as appropriate in the reporting period they become known. Items for which actual results may differ materially from these estimates are described in the following section.

(i) Fair value of options and conversion features

The Company makes estimates and utilizes assumptions in determining the fair value for stock options and derivative liabilities based on the application of the Black-Scholes option pricing model or the binomial option pricing model, depending on the circumstances. These pricing models require management to make various assumptions and estimates that are susceptible to uncertainty, including the volatility of the share price, expected dividend yield, expected term, expected risk-free interest rate, and exercise price in the binomial option pricing model.

(ii) Useful lives and recoverability of long-lived assets

Long-lived assets consist of property and equipment and patents. Amortization is dependent upon estimates of useful lives and impairment is dependent upon estimates of recoverable amounts. These are determined through the exercise of judgment and are dependent upon estimates that take into account factors such as economic and market conditions, frequency of use, anticipated changes in laws, and technological improvements.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

3. Basis of presentation (continued)

(d) Use of estimates and judgments (continued)

(iii) Income taxes

Income taxes and tax exposures recognized in the consolidated financial statements reflect management's best estimate of the outcome based on facts known at the reporting date. When the Company anticipates a future income tax payment based on its estimates, it recognizes a liability. The difference between the expected amount and the final tax outcome has an impact on current and deferred taxes when the Company becomes aware of this difference.

When the Company incurs losses for income tax purposes, it assesses the probability of taxable income being available in the future, based on budgeted forecasts. These forecasts are adjusted for certain non-taxable income and expenses and specific rules on the use of unused credits and tax losses. When the forecasts indicate that sufficient future taxable income will be available to deduct the temporary differences, a deferred tax asset is recognized for all deductible temporary differences.

(iv) Going concern assumption

The Company applies judgment in assessing whether material uncertainties exist that would cause doubt as to the whether the Company could continue as a going concern.

4. Summary of significant accounting policies

The principal accounting policies applied to the preparation of these consolidated financial statements are set out below:

(a) Foreign currency translation

These consolidated financial statements are presented in USD, which is the functional currency of the Company and all of its subsidiaries. At each reporting date, foreign currency denominated monetary assets and liabilities are translated at year-end exchange rates. Nonmonetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Income and expenses, and cash flows of foreign operations, are translated into USD using annual average exchange rates. Exchange differences arising from operating transactions are recorded in operating profit or loss for the period; exchange differences related to financing transactions are recognized in finance income or directly in equity.

(b) Financial instruments

The Company aggregates similar financial instruments into classes based on their nature and characteristics. All financial assets except those classified as fair value through profit or loss are reviewed at each reporting date to determine whether there is any indication of impairment. Financial assets are considered to be impaired when there is objective evidence that the estimated future cash flows of the investment have been affected as a result of one or more events that occurred after the initial recognition.

The Company's accounting policy for each class of financial instruments is as follows:

(i) Fair value through profit or loss

Financial instruments classified as fair value through profit or loss are reported at fair value at each reporting date, and any change in fair value is recognized in net income in the period during which the change occurs. In these consolidated financial statements, cash and derivative liabilities have been classified as fair value through profit or loss.

(ii) Loans and receivables and other financial liabilities

Financial instruments classified as loans and receivables and other financial liabilities are carried at amortized cost using the effective interest method. Transaction costs are included in the amount initially recognized. In these consolidated financial statements, trade payables and other liabilities and convertible debentures have been classified as other financial liabilities.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

4. Summary of significant accounting policies (continued)

(c) Convertible debentures and derivative liabilities

The Company issues convertible debentures used as bridge loans, which can be converted into common shares at the option of the holder, into a fixed number of shares for a fixed amount of consideration, or into a fixed number of shares for a variable amount of consideration, or into a variable number of shares.

(i) Initial recognition

Upon initial recognition, the Company determines whether the convertible debentures consist of liability and equity components, or if both components represent liabilities.

For convertible debentures which provide conversion into a fixed number of shares, the liability component is recognized initially at the fair value of a similar, non-convertible liability. The equity component is recognized as the difference between the fair value of the instrument as a whole and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts.

For convertible debentures which provide conversion into a variable number of shares or into a fixed number of shares for a variable amount of consideration, the conversion option is accounted for as an embedded derivative, which is separated from the host contract. Upon initial recognition, the derivative liability is valued at fair value using a Black Scholes or a binomial pricing model. The carrying amount of the convertible debenture is recognized as the difference between the fair value of the instrument as a whole and the fair value of the derivative liability. Any directly attributable transaction costs allocated to the derivative liability are expensed in the period.

(ii) Modifications and extinguishments

To the extent there are changes to the terms of outstanding convertible debentures, these changes may be recorded as a modification or an extinguishment. A substantial change in the terms of an existing financial liability is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. The terms are substantially different if the discounted present value of the cash flows under the new terms is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. For a modification that does not result in derecognition, a gain or loss will be recognised in profit or loss for the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate.

(d) Property and equipment

Property and equipment are recorded at cost and are amortized over their estimated useful lives at the following annual rates and methods:

	Method	Rate
Computers	Declining balance	30%
Furniture and equipment	Declining balance	30%
Right-of-use asset	Straight-line	over remaining 21 month lease term

(e) Impairment of long-lived assets

The Company follows the guidelines prescribed in IAS 36 with respect to the measurement for impairment of assets. The carrying amounts of property and equipment and patents are reviewed for impairment when events or changes in circumstances indicate that the carrying amounts may not be recoverable. When the carrying amount exceeds the estimated recoverable amount, the assets are written down to their recoverable amount.

The recoverable amount of long-lived assets is the greater of fair value less costs to sell and value in use. Impairment losses are recognized in the consolidated statements of loss and comprehensive loss.

Micromem Technologies Inc.
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For the years ended October 31, 2020, 2019 and 2018
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4. Summary of significant accounting policies (continued)

(f) Development costs

Research costs are expensed in the period incurred. Development costs are expensed as incurred unless they meet the criteria for capitalization. Expenditures during the development phase are capitalized if the Company can demonstrate each of the following criteria: (i) the technical feasibility of completing the asset so that it will be available for use or sale, (ii) its intention to complete the asset and use or sell it, (iii) its ability to use or sell the asset, (iv) how the asset will generate probable future economic benefits, (v) the availability of adequate technical, financial and other resources to complete the development and to use or sell the asset, and (vi) its ability to measure reliably the expenditure attributable to the asset during its development; otherwise, these costs are expensed as incurred. Costs to be recovered from development partners are recorded to development costs receivable. Payments received from development partners on projects are recorded to income as a recovery of costs incurred and reduce the outstanding receivable. There were no development costs incurred or recovery of such costs in 2020. Recovery of historic development costs in 2019 amounted to \$41,546.

(g) Patents

Patents are recorded at cost and are amortized on a straight line basis over their estimated useful lives of 5 years.

(h) Stock-based compensation and other stock-based payments

Where equity instruments are granted to employees, they are recorded at the fair value of the equity instrument granted at the grant date. The grant date fair value is recognized in net income over the vesting period. Where equity instruments are granted to non-employees, they are recorded at the fair value of the goods or services received. When the value of goods or services received in exchange for the stock-based payment cannot be reliably estimated, the fair value is measured by use of a valuation model. The cost recognized for all equity-settled stock-based payments are reflected in contributed surplus, until the instruments are exercised. Upon exercise, shares are issued from treasury and the amount previously reflected in contributed surplus along with any proceeds paid upon exercise, are credited to share capital.

(i) Government grants

The Company recognises government grants when there is reasonable assurance of compliance with grant conditions and that the grants will be received. Government grants are recognised in profit or loss on a systematic basis over the periods when the related expenses are incurred and are presented in the consolidated financial statements as a reduction of these expenses. A government grant that becomes receivable as compensation for expenses already incurred is recognised in profit or loss of the period in which it becomes receivable.

(j) Income taxes

The Company accounts for its income taxes using the deferred tax assets and liabilities method. Deferred income tax assets and liabilities are determined based on the difference between the carrying amount and the tax basis of the assets and liabilities. Any change in the net amount of deferred income tax assets and liabilities is included in profit or loss or equity. Deferred income tax assets and liabilities are determined based on enacted or substantively enacted tax rates and laws which are expected to apply to taxable profit for the years in which the assets and liabilities will be recovered or settled. Deferred income tax assets are recognized when it is probable they will be realized. Deferred tax assets and liabilities are not discounted.

(k) Provisions

Provision for risks and expenses are recognized for probable outflows of resources that can be estimated and that result from present obligations resulting from past events. In the case where a potential obligation resulting from past events exists, but where occurrence of the outflow of resources is not probable or the estimate is not reliable, these contingencies are disclosed. Provisions, if any, are measured based on management's best estimates of outcomes on the basis of facts known at the reporting date.

(l) Share capital

Share capital is presented at the fair value of the shares issued. Costs related to the issuance of shares are reported in equity, net of tax, as a deduction from the issuance proceeds.

Micromem Technologies Inc.
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4. Summary of significant accounting policies (continued)

(m) Earnings or loss per share

The Company presents basic and diluted earnings per share data for its common shares. Basic earnings per share is calculated by dividing the profit or loss attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period. Diluted earnings per share is determined by adjusting the profit or loss attributable to common shareholders and the weighted average number of common shares outstanding, for the effects of all potentially dilutive common shares, which comprise stock options and convertible debentures.

5. Adoption of new accounting pronouncements

(a) IFRS 16 Leases

IFRS 16 replaces the previous guidance on leases. This standard provides a single recognition and measurement model to be applied by lessees to leases, with required recognition of assets and liabilities for most leases. This standard is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. The Company has adopted this new standard as of its effective date, in accordance with the transitional provisions specified in IFRS 16. The Company has applied the following practical expedients:

- (i) The Company applied the simplified transition approach and did not restate comparative information. As a result, the Company recognized the cumulative effect of initially applying IFRS 16 as an adjustment to the accumulated deficit as at November 1, 2019.
- (ii) The Company elected to apply IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 - Determining whether an arrangement contains a lease, were not reassessed for whether there is a lease. The Company applied the definition of a lease under IFRS 16 to contracts entered into or changed on or after November 1, 2019.
- (iii) The present value of remaining minimum lease payments is capitalized as an asset and offsetting lease liability recognized. As the interest rate implicit in the lease cannot be readily determined, management applied the Company's incremental borrowing rate (based on recent non-convertible debentures) of 24% per annum as the discount rate.

In accordance with the practical expedients applied, the Company has recognized lease liabilities and right-of-use assets at the date of initial application for leases previously classified as operating leases in accordance with IAS 17. There were no onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application. The Company has no short term leases.

The change in accounting policy had the following impact on the statement of financial position:

		As at November 1, 2019		
		Previously stated	Impacts from adoption	Restated
Impact of IFRS 16 on statement of financial position				
Right-of-use asset	Note 7	-	74,307	74,307
Current lease liability	Note 9	-	36,442	36,442
Non-current lease liability	Note 9	-	37,865	37,865

5. Adoption of new accounting pronouncements (continued)

(a) IFRS 16 Leases (continued)

The following is the Company's policy for accounting for lease contracts in accordance with IFRS 16:

At the inception of a contract, the Company assesses whether a contract is, or contains a lease. A contract is, or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company recognizes a right-of-use asset and a lease liability at the commencement date of the lease. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use assets are adjusted for impairment losses, if any. The estimated useful lives and recoverable amounts of right-of-use assets are determined on the same basis as those of property and equipment. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate currently set at 24%. The lease liability is subsequently measured at amortized cost using the effective interest method. The Company has elected not to recognize right-of-use assets and lease liabilities for short-term leases (lease term of 12 months or less) and leases for which the underlying asset is of low value as there are none. The Company recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(b) IFRIC 23 Uncertainty over income tax treatments

IFRIC 23 clarifies the application of recognition and measurement requirements in IAS 12, Income Taxes, when there is uncertainty over income tax treatments. It specifically addresses whether an entity considers each tax treatment independently or collectively, the assumptions an entity makes about the examination of tax treatments by taxation authorities, how an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, and how an entity considers changes in facts and circumstances. IFRIC 23 became effective for the annual periods beginning on or after January 1, 2019, with earlier application permitted. The Company has adopted this interpretation as of its effective date and assessed no significant impact as a result of the adoption of this interpretation.

6. New and revised standards and interpretations issued but not yet effective

Certain pronouncements were issued by the IASB or the IFRIC that are mandatory for accounting periods commencing on or after January 1, 2020. Many are not applicable or do not have a significant impact to the Company and have been excluded. The following have not yet been adopted and are being evaluated to determine their impact on the Company.

(a) IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors

IAS 1 and IAS 8 were amended in October 2018 to refine the definition of materiality and clarify its characteristics. The revised definition focuses on the idea that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments are effective for annual reporting periods beginning on or after January 1, 2020, with earlier adoption permitted. The Company will adopt this interpretation as of its effective date. The Company has performed a preliminary analysis and has not assessed any significant impacts as a result of the adoption of these amendments.

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7. Property and equipment

	November 1, 2018	Additions / Disposals	Restatement Note 4(a)	November 1, 2019	Additions / Disposals	October 31, 2020
Cost						
Computers	\$ 35,416	\$ (3,376)	\$ -	\$ 32,040	\$ -	\$ 32,040
Right-of-use assets	-	-	74,307	74,307	-	74,307
	<u>\$ 35,416</u>			<u>\$ 106,347</u>	<u>\$ -</u>	<u>\$ 106,347</u>
Accumulated amortization						
Computers	\$ 26,188	\$ 3,175	\$ -	\$ 29,363	\$ 714	\$ 30,077
Right-of-use assets	-	-	-	-	27,021	27,021
	<u>\$ 26,188</u>			<u>\$ 29,363</u>	<u>\$ 27,735</u>	<u>\$ 57,098</u>
Net book value	<u>\$ 9,228</u>			<u>\$ 76,984</u>		<u>\$ 49,249</u>

8. Patents

	November 1, 2018	Additions	Impairment	November 1, 2019	Additions	October 31, 2020
Cost	\$ 904,431	\$ -	\$ (223,143)	\$ 681,288	\$ -	\$ 681,288
Accumulated amortization	508,326	152,962	-	661,288	8,123	669,411
Net book value	<u>\$ 396,105</u>			<u>\$ 20,000</u>		<u>\$ 11,877</u>

The Company holds several patents in the United States for its Multimodal Fluid Condition Sensor Platform. In prior years, the Company had negotiated with a major automotive company and a Tier 1 manufacturer for the development and commercial exploitation of this patented technology. In 2019, the Company discontinued provisional patent applications in international jurisdictions and determined that the patents were impaired as its carrying amount was higher than its recoverable amount. The value in use, measured as the present value of the future cash flows expected to be derived from this asset class, had been estimated at a minimum of \$20,000 at October 31, 2019. Accordingly, the Company recorded an impairment reserve of \$223,143 in fiscal year 2019. The Company maintains that there remains significant potential value in its existing patents in terms of potential licensing agreements and royalty fees once it begins to exploit this asset class in the future.

9. Leases

(a) Maturity analysis of lease obligations

The following represents a maturity analysis of the Company's undiscounted principal amount of contractual lease obligations as at October 31, 2020.

	CDN
Less than one year	\$ 48,060
Two to five years	32,040
	<u>\$ 80,100</u>

(b) Supplemental disclosure

For the year ended October 31, 2020, the Company recognized \$14,081 of interest expense on lease obligations in the consolidated statements of operations and comprehensive loss. The Company further recognized total cash outflow of \$11,423 relating to leases.

10. Long-term loan

On April 15, 2020, the Company obtained a \$40,000 CDN (\$30,269 USD) interest-free loan from the Government of Canada under the Canada Emergency Business Account ("CEBA") program to cover its operating costs. The term loan matures on December 31, 2025. Repaying the balance of the loan on or before December 31, 2022 will result in a loan forgiveness of \$10,000 CDN (\$7,567 USD). Effective January 1, 2023, any outstanding balance on the term loan shall bear interest at a rate of 5% per annum. As the Company does not yet know whether they will be able to meet the terms of forgiveness, no amount has been recognized to income.

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11. Convertible debentures

The Company issues three types of convertible debentures: USD denominated convertible debentures with an equity component, Canadian dollar ("CDN") denominated convertible debentures with an embedded derivative due to variable consideration payable upon conversion caused by foreign exchange, and USD denominated convertible debentures with an embedded derivative caused by variable conversion prices.

	Convertible debentures		Derivative liabilities		Equity component of convertible debentures	
	2020	2019	2020	2019	2020	2019
(a)	\$ 2,881,719	\$ 2,511,514	\$ 197,270	\$ 204,366	\$ 23,952	\$ 50,147
(b)	199,799	87,560	336,292	561,059	-	-
	<u>\$ 3,081,518</u>	<u>\$ 2,599,074</u>	<u>\$ 533,562</u>	<u>\$ 765,425</u>	<u>\$ 23,952</u>	<u>\$ 50,147</u>

(a) USD denominated debentures with equity components and CDN denominated debentures with embedded derivatives

All loan principal amounts are expressed in original currency and all remaining dollar amounts expressed in USD. Convertible debentures outstanding as at October 31:

	USD (equity component)		CDN (embedded derivative)	
	2020	2019	2020	2019
Loan principal				
Opening balance	\$ 931,000	\$ 931,000	\$ 2,271,017	\$ 2,234,294
Issuance during the year	185,200	-	17,052	165,266
Repayment or conversion	(20,000)	-	(158,364)	(128,543)
Outstanding at year-end	<u>\$ 1,096,200</u>	<u>\$ 931,000</u>	<u>\$ 2,129,705</u>	<u>\$ 2,271,017</u>

Terms of loan

Annual interest rate	12% - 24%	12% - 24%	12% - 24%	12% - 24%
Effective annual interest rate	24%	24% - 36%	12% - 1270%	13% - 645%
Conversion price to common shares	\$ 0.03 - \$0.07	\$ 0.04 - \$0.07	\$ 0.05 - \$0.14	\$ 0.05 - \$0.15
Remaining life (in months)	1 - 9	1 - 6	0 - 6	0 - 12

Consolidated Statement of Financial Position

Carrying value of loan principal	\$ 1,083,375	\$ 906,993	\$ 1,403,787	\$ 1,464,416
Interest payable	151,387	18,661	243,170	121,444
Convertible debentures	<u>\$ 1,234,762</u>	<u>\$ 925,654</u>	<u>\$ 1,646,957</u>	<u>\$ 1,585,860</u>
Derivative liabilities	\$ -	\$ -	\$ 197,270	\$ 204,366
Equity component of convertible debentures	\$ 23,952	\$ 50,147	\$ -	\$ -

Consolidated Statement of Operations and Comprehensive Loss

Accretion expense	\$ 37,934	\$ 118,749	\$ 723,641	\$ 914,780
Interest expense	\$ 194,091	\$ 191,001	\$ 215,923	\$ 229,673
Gain on revaluation of derivative liabilities	\$ -	\$ -	\$ (590,625)	\$ (846,401)
Loss on conversion of convertible debentures	\$ -	\$ -	\$ -	\$ -
Loss (gain) on extinguishment of convertible debentures	\$ -	\$ -	\$ (10,919)	\$ (2,865)

Consolidated Statement of Changes in Equity

Amount of principal converted to common shares	\$ 20,000	\$ -	\$ 35,000	\$ -
Amount of interest converted to common shares	\$ 447	\$ -	\$ 1,168	\$ -

Number of common shares issued on conversion of convertible debentures

511,175	-	731,440	-
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Consolidated Statement of Cash Flows

Amount of principal repaid in cash	\$ -	\$ -	\$ 93,721	\$ 96,598
Amount of interest repaid in cash	\$ 60,918	\$ 187,440	\$ 93,005	\$ 159,801

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11. Convertible debentures (continued)

(b) USD denominated debentures with embedded derivatives

During the year ended October 31, 2020, the Company has incurred \$35,500 (2019 - \$72,476; 2018 - \$40,414) in financing costs which primarily consist of early repayment premiums and administrative fees relating to the convertible debentures, of which \$7,500 (2019 - \$21,000; 2018 - \$nil) was converted into common shares.

Convertible debentures outstanding as at October 31, 2020:

	(i)		(ii)	
	2020	2019	2020	2019
Loan principal				
Opening balance	\$ 304,000	\$ 213,600	\$ 121,000	\$ 101,250
Issuance during the year	449,000	563,600	273,770	307,250
Conversion	(447,000)	(397,600)	(106,000)	(287,500)
Repayment	(80,000)	(75,600)	-	-
Outstanding at year-end	<u>\$ 226,000</u>	<u>\$ 304,000</u>	<u>\$ 288,770</u>	<u>\$ 121,000</u>
Terms of loan				
Annual interest rate	4%	4%	2% - 10%	10%
Effective annual interest rate	4070% -	139% -	2573% -	4338% -
	5278%	5044%	20559%	5368%
Conversion price to common shares	(i)	(i)	(ii)	(ii)
Remaining life (in months)	9 - 12	6 - 11	0 - 5	3 - 12
Consolidated Statement of Financial Position				
Carrying value of loan principal	\$ 56	\$ 39,993	\$ 165,564	\$ 23,429
Interest payable	14,515	10,953	19,664	13,185
Convertible debentures	<u>\$ 14,571</u>	<u>\$ 50,946</u>	<u>\$ 185,228</u>	<u>\$ 36,614</u>
Derivative liabilities	\$ 153,804	\$ 370,759	\$ 182,489	\$ 190,300
Consolidated Statement of Operations and Comprehensive Loss				
Accretion expense	\$ 136,533	\$ 57,111	\$ 201,711	\$ 165,753
Interest expense	\$ 11,390	\$ 27,053	\$ 19,965	\$ 21,916
Gain on revaluation of derivative liabilities	\$ (73,082)	\$ 196,842	\$ (106,213)	\$ 294,673
Loss on conversion of convertible debentures	\$ 54,436	\$ 49,738	\$ 42,048	\$ 281
Loss (gain) on extinguishment of convertible debentures	\$ (116,490)	\$ 2,219	\$ -	\$ -
Consolidated Statement of Changes in Equity				
Amount of principal converted to common shares	\$ 447,000	\$ 397,600	\$ 106,000	\$ 287,500
Amount of interest converted to common shares	\$ 6,060	\$ 23,100	\$ 20,986	\$ 21,969
Number of common shares issued on conversion of convertible debentures	29,409,479	29,106,847	13,585,550	33,421,726
Consolidated Statement of Cash Flows				
Amount of principal repaid in cash	\$ 80,000	\$ 75,600	\$ -	\$ -
Amount of interest repaid in cash	\$ 1,767	\$ 5,973	\$ -	\$ -

(i) Conversion price defined as 75% multiplied by the average of the lowest 3 closing stock prices for the 10 trading days prior to conversion date.

(ii) Conversion price defined as 75% multiplied by the lowest stock price for the 20 trading days prior to conversion date.

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11. Convertible debentures (continued)

(b) USD denominated debentures with embedded derivatives

Convertible debentures outstanding as at October 31, 2020:

	(iii)	
	2020	2019
Loan principal		
Opening balance	\$ -	\$ 308,000
Conversion	-	(308,000)
Outstanding at year-end	<u>\$ -</u>	<u>\$ -</u>
Terms of loan		
Annual interest rate	n/a	5%
Effective annual interest rate	n/a	5234%
Conversion price to common shares	(iii)	(iii)
Remaining life (in months)	n/a	n/a
Consolidated Statement of Operations and Comprehensive Loss		
Accretion expense	\$ -	\$ 261,042
Interest expense	\$ -	\$ 22,443
Gain on revaluation of derivative liabilities	\$ -	\$ 11,451
Consolidated Statement of Changes in Equity		
Amount of principal converted to common shares	\$ -	\$ 308,000
Amount of interest converted to common shares	\$ -	\$ 18,339
Number of common shares issued on conversion of convertible debentures	-	19,510,390

(iii) Conversion price defined as 75% multiplied by lowest stock price for the 15 trading days prior to conversion date.

(c) Fair value of derivative liabilities outstanding

The fair value of the derivative liabilities is determined in accordance with the Black-Scholes or binomial option-pricing models, depending on the circumstances. The underlying assumptions are as follows:

	2020	2019
Share price	\$0.02	\$0.02
Exercise price	\$0.01 - \$0.11	\$0.01 - \$0.11
Volatility factor (based on historical volatility)	100% - 187%	173% - 321%
Risk free interest rate	0.10% - 0.19%	1.67% - 1.69%
Expected life of conversion features (in months)	0 - 12	0 - 12
Expected dividend yield	0%	0%
CDN to USD exchange rate (as applicable)	0.7567	0.7582
Call value	\$0.00 - \$0.02	\$0.00 - \$0.02

Volatility was estimated using the historical volatility of the Company's stock prices for common shares.

12. Share capital

(a) Authorized and outstanding shares

The Company has two classes of shares as follows:

- (i) Special redeemable voting preference shares - 2,000,000 authorized, nil issued and outstanding.
- (ii) Common shares without par value – an unlimited number authorized. The holders of the common shares are entitled to receive dividends which may be declared from time to time, and are entitled to one vote per share at shareholder meetings of the Company. All common shares are ranked equally with regards to the Company's residual assets.

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12. Share capital (continued)

(b) Private placements

- (i) In 2020, the Company completed three private placements with investors consisting of common shares with no warrants, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$425,789 and issued a total of 10,996,994 common shares.
- (ii) In 2019, the Company completed four private placements with investors consisting of common shares with no warrants, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$212,968 and issued a total of 4,961,059 common shares.
- (iii) In 2018, the Company completed thirty-three private placements with investors consisting of common shares with no warrants, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$866,200 and issued a total of 14,739,272 common shares.

13. Stock options

(a) Stock option plan

Until September 8, 2020, under the Company's fixed stock option plan (the "Plan"), the Company could grant up to 18,840,000 shares of common stock to directors, officers, employees or consultants of the Company and its subsidiaries. The exercise price of each option is equal to or greater than the market price of the Company's shares on the date of grant unless otherwise permitted by applicable securities regulations. An option's maximum term under the Plan is 10 years. Stock options are fully vested upon issuance by the Company unless the Board of Directors stipulates otherwise by Directors' resolution.

The Company held its Annual General Meeting of Shareholders on September 8, 2020. The authorized limit for stock options in the Company's plan was increased from 18.84 million options to 27.5 million options at the meeting.

(b) Summary of changes

	Number of options	Weighted average exercise price
Outstanding at November 1, 2018	6,250,000	\$ 0.29
Expired	(520,000)	0.34
Outstanding at October 31, 2019	5,730,000	\$ 0.25
Cancelled	(2,040,000)	0.25
Expired	(1,490,000)	0.46
Outstanding at October 31, 2020	2,200,000	\$ 0.10

All options vest immediately upon issuance. There were no options issued to directors and officers during the year ended October 31, 2020 (2019 - nil; 2018 - 700,000) nor employees (2019 - nil; 2018 - 1,500,000).

(c) Stock options outstanding at October 31, 2020

Date of issue	Expiry date	Weighted average		
		Number of options	Exercise price	Remaining contractual life (years)
June 29, 2018	June 29, 2023	2,200,000	0.10	2.7
Outstanding and exercisable at October 31, 2020		2,200,000	\$ 0.10	2.7

Subsequent to October 31, 2020, the Company granted 6.5 million stock options to employees, senior officers, directors and one consultant (Note 23(f)).

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14. Loss per share

Basic and diluted loss per share are calculated using the following numerators and denominators:

Numerator	2020	2019	2018
Loss attributable to common shareholders	\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Loss used in computation of basic and diluted loss per share	\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Denominator			
Weighted average number of common shares for computation of basic and diluted loss per share	377,380,476	288,398,051	237,242,674

For the year ended October 31, 2020, 2019 and 2018, all stock options and conversion features were anti-dilutive and, therefore, are excluded from the calculation of diluted loss per share.

15. Income taxes

- (a) The Company has non-capital losses of approximately \$31.1 million available to reduce future taxable income, the benefit of which has not been recognized in these consolidated financial statements. At October 31, 2020, the tax losses expire as follows:

	Canada	Other foreign	Total
2026	\$ 1,803,343	\$ -	\$ 1,803,343
2027	1,516,471	-	1,516,471
2028	-	-	-
2029	1,554,181	461,496	2,015,677
2030	2,096,995	1,880,897	3,977,892
2031	1,263,375	18,526	1,281,901
2032	1,400,147	325,793	1,725,940
2033	1,697,116	157,463	1,854,579
2034	2,455,152	679,089	3,134,241
2035	2,774,535	570,901	3,345,436
2036	3,256,074	441,019	3,697,093
2037	2,606,582	232,719	2,839,301
2038	1,762,145	-	1,762,145
2039	1,576,315	3,923	1,580,238
2040	531,199	-	531,199
	<u>\$ 26,293,630</u>	<u>\$ 4,771,826</u>	<u>\$ 31,065,456</u>

- (b) In addition, the Company has available capital loss carry forwards of approximately \$1.3 million to reduce future taxable capital gains, the benefit of which has not been recognized in these consolidated financial statements. Capital losses carry forward indefinitely.
- (c) Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

	2020	2019	2018
Non-capital losses and other	\$ 8,232,346	\$ 8,073,286	\$ 7,698,859
Capital losses	166,316	175,090	175,090
Property, equipment, patents and deferred costs	1,666,788	1,668,632	1,567,228
	<u>\$ 10,065,450</u>	<u>9,917,008</u>	<u>\$ 9,441,177</u>
Deferred tax asset not recognized	<u>(10,065,450)</u>	<u>(9,917,008)</u>	<u>(9,441,177)</u>
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

As at October 31, 2020 and 2019, the Company assessed that it is not probable that sufficient taxable profit will be available to use deferred income tax assets based on operating losses in prior years; therefore, there are no balances carried in the consolidated statements of financial position for such assets.

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15. Income taxes (continued)

- (d) The reconciliation of income tax attributed to continuing operations computed at the statutory tax rates to income tax expense is as follows:

	2020	2019	2018
Loss before income taxes	\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Statutory tax rate	26.50%	26.50%	26.50%
Expected income tax recovery	\$ (330,029)	\$ (750,709)	\$ (625,993)
Non-deductible expenses and other items	143,550	270,610	182,056
Effect of exchange rate on deferred tax assets carried forward and other	38,037	4,269	225,846
Effect of higher tax rates in foreign jurisdictions	-	-	-
Change in deferred tax assets not recognized	148,442	475,830	218,091
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

16. Operating expenses

- (a) General and administrative

The components of general and administrative expenses are as follows:

	2020	2019	2018
General and administrative	\$ 49,702	\$ 56,720	\$ 63,936
Rent and occupancy	37,153	64,647	70,674
Office insurance	2,024	26,812	117,615
Investor relations, listing and filing fees	49,537	49,029	53,113
Loss on settlement of accounts payable	15,591	-	-
	<u>\$ 154,007</u>	<u>\$ 197,208</u>	<u>\$ 305,338</u>

- (b) Professional, other fees and salaries

The components of professional, other fees and salaries expenses are as follows:

	2020	2019	2018
Professional fees	\$ 148,926	\$ 157,354	\$ 165,685
Consulting fees	138,123	53,845	316,815
Salaries and benefits	175,075	230,782	264,780
	<u>\$ 462,124</u>	<u>\$ 441,981</u>	<u>\$ 747,280</u>

- (i) Wage subsidy

The Canada Emergency Wage Subsidy (CEWS) was announced by the Government of Canada on March 27, 2020 to enable companies negatively impacted by COVID-19 to re-hire workers. Under this program, qualifying businesses can receive up to 75% of their employees' wages, with employers being encouraged to provide the remaining 25%.

For the year ended October 31, 2020, the Company recognized \$85,455 CDN (\$63,792 USD) of wage subsidy under this program, which has been recorded as a reduction of salaries expenses in the consolidated statements of operations and comprehensive loss. This program has been extended until March 2021.

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17. Supplemental cash flow information

The following provides a reconciliation of the cash flows from convertible debentures and derivative liabilities :

	2020	2019
Balance - beginning of period	\$ 3,364,499	\$ 3,126,687
Cash flows from financing activities:		
Proceeds from issuance of convertible debentures	612,279	780,891
Repayments of convertible debentures	(150,920)	(172,198)
Non-cash changes:		
Increase in loan principal ⁽ⁱ⁾	-	60,000
Accretion expense	1,099,818	1,517,436
Accrued interest on convertible debentures	285,679	164,243
Gain on revaluation of derivative liabilities	(771,920)	(343,436)
Gain on extinguishment of debt	(127,409)	(646)
Convertible debentures converted into common shares	(762,847)	(1,636,825)
Renewal of convertible debentures	(26,752)	(106,594)
Foreign exchange loss (gain)	92,652	(25,059)
Balance - end of period	<u>\$ 3,615,080</u>	<u>\$ 3,364,499</u>

- (i) In accordance with the convertible debenture agreements, additional consideration was provided as of the conversion date, based on the stipulated conversion price.

18. Key management compensation and related party transactions

The Company reports the following related party transactions:

- (a) Key management compensation

Key management personnel are persons responsible for planning, directing and controlling activities of the Company, including officers and directors. Compensation paid or payable to these individuals (or companies controlled by such individuals) are summarized as follows:

	2020	2019	2018
Professional, other fees, and salaries	\$ 17,517	\$ 4,684	\$ 235,297
Stock-based compensation	-	-	44,740
	<u>\$ 17,517</u>	<u>\$ 4,684</u>	<u>\$ 280,037</u>

In 2020, these parties were not awarded any options (2019 - nil; 2018 - 700,000 options at an exercise price of \$0.10).

Subsequent to October 31, 2020, the Company awarded 3 million stock options to key management as part of the total 6.5 million stock options issued (Note 23(f)).

- (b) Trade payables and other liabilities

At October 31, 2019, the Company reported \$205,788 in trade payable and other liabilities, representing alleged outstanding wages and expenses payable to the former President of MAST, Mr. Steven Van Fleet. The alleged payables related to claims made by Mr. Van Fleet as amounts owing to him prior to his resignation as an officer and director of the Company on August 27th, 2018.

As described in Note 19(b) below, the Company has reversed this reserve in the fiscal year ended October 31, 2020 based on the developments in this legal matter in 2020. The reasonable value of Mr. Van Fleet's claims against the Company as of October 31, 2020 is \$nil.

As at October 31, 2020 and 2019, the Company reports \$167,000 in trade payables and other liabilities owing to a company whose major shareholder was a former director of the Company and who has also previously served as its Chief Technology Officer. This individual was elected as a director on February 19, 2014 through September 8, 2020. The balance reported relates to alleged services provided in 2015; there have been no invoices submitted by this related party after October 31, 2015.

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18. Key management compensation and related party transactions (continued)

(c) Convertible debentures

In May 2019, the CEO of the Company provided for a short-term loan of \$15,000 CDN (\$11,450 USD). At October 31, 2019, \$10,000 CDN (\$7,582 USD) in loan principal was outstanding. In 2020, the remaining amount of loan principal was extinguished by participation of the CEO in the private placement which the Company completed at the time. The extinguishment of the debt for the shares received in the private placement resulted in an a loss on conversion of \$14,000 CDN (\$10,600 USD).

In January 2018, the CEO of the Company provided for a convertible debenture of \$150,000 CDN (\$114,086 USD). As at October 31, 2020, \$10,001 CDN (\$7,509 USD)(October 31, 2019 - \$52,319 CDN, \$39,756 USD) in loan principal remains outstanding.

19. Contingencies

(a) The Company has agreed to indemnify its directors and officers and certain of its employees in accordance with the Company's by-laws. The Company maintains insurance policies that may provide coverage against certain claims.

(b) On October 7, 2018, the former President of MAST, Inc. (a wholly-owned subsidiary), Mr. Steven Van Fleet, filed a lawsuit against Micromem and MAST in New York State Supreme Court, Dutchess County. In the action, Mr. Van Fleet is seeking payment of \$214,574 plus interest relating to alleged remuneration and expense reimbursements due to him prior to his resignation as an officer and director of Micromem and MAST on August 17, 2018. The Company answered the complaint on December 7, 2018 by denying the material allegations in Mr. Van Fleet's claims. In addition, the Company interposed 7 counterclaims against Mr. Van Fleet seeking, among other things: (i) damages of not less than \$2.75 million,

(ii) specific performance to compel Mr. Van Fleet to comply with his contractual obligations which were required for the period of time that he served as an officer and director through to his resignation date; (iii) repayment of certain salary and expenses paid to Mr. Van Fleet; (iv) a direction for Mr. Van Fleet to turn over all Company property in his possession or control; (v) an accounting to determine all money and property belonging to the Company and/or MAST. On January 24, 2019, the Company amended its original answer and counterclaims to include, among other things, a demand for additional damages based on new information that had come to light. On February 8, 2019, Mr. Van Fleet, through his counsel, replied to and denied the material allegations in Micromem's counterclaims.

In January 2020, the court sent a schedule for completing discovery, which later had to be revised due to the COVID-19 pandemic. In May 2020, the court revised the discovery schedule, which required the parties to complete depositions and all remaining discovery by August 26, 2020.

Counsel for the parties agreed that Mr. Van Fleet's deposition would proceed on July 31, 2020. The day before the deposition, Mr. Van Fleet's counsel advised the Company's counsel that if Mr. Van Fleet were to appear at the deposition, he would invoke his Fifth Amendment right not to incriminate himself with respect to the Company's counterclaims, and that rather than doing so, Mr. Van Fleet had chosen not to appear for his deposition and would never appear for his deposition in the future.

In light of this development, on September 25, 2020 the Company's counsel moved for a default, asking the court to strike Mr. Van Fleet's claims and to enter a judgment in the Company's favor on its counterclaims. Mr. Van Fleet has not submitted any opposition to the motion. Although the motion has not yet been decided, given that the facts and law support a default, and the motion is unopposed, we anticipate that the court will grant the motion striking Mr. Van Fleet's claim and schedule a hearing to determine the Company's damages on its counterclaims.

Based on these developments, we believe that, at October 31, 2020, the reasonable value of Mr. Van Fleet's claims against the Company was \$nil. Our belief has been confirmed by events since that date. While the Company may obtain a judgment for damages, we cannot currently predict the amount of damages, if any, that will be awarded and/or if a judgment will be collectible.

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20. Financial risk management

(a) Currency risk

Currency risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in foreign exchange rates. The Company is exposed to currency risk to the extent that it incurs expenses and issues convertible debentures denominated in Canadian dollars (CDN). The Company manages currency risk by monitoring the Canadian position of these monetary financial instruments on a periodic basis throughout the course of the reporting period.

As at October 31, 2020, balances that are denominated in CDN are as follows:

	CDN	
	2020	2019
Cash (bank indebtedness)	\$ 8,759	\$ (3,188)
Prepaid expenses and other receivables	\$ 33,594	\$ -
Trade payables and other liabilities	\$ 23,530	\$ 387,766
Convertible debentures (carrying value)	\$ 2,176,454	\$ 2,010,940
Derivative liabilities	\$ 260,692	\$ 207,161
Long-term loan	\$ 40,000	\$ -

A 10% strengthening of the US dollar against the CDN would decrease accumulated deficit by \$169,114 as at October 31, 2020 (2019 - decrease accumulated deficit by \$158,836). A 10% weakening of the USD against the CDN would have had the opposite effect of the same magnitude.

(b) Interest rate risk

Interest rate risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in market interest rates. The Company is exposed to interest rate risk on its interest-bearing convertible debentures. This exposure is limited due to the short-term nature of the convertible debentures.

(c) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company's policy is to review liquidity resources and ensure that sufficient funds are available to meet financial obligations as they become due. Further, the Company's management is responsible for ensuring funds exist and are readily accessible to support business opportunities as they arise. The Company's funding is provided in the form of capital raised through the issuance of shares on conversion of convertible debentures. With the exception of the long-term loan, all financial liabilities are due within 1 year as at October 31, 2020.

(i) Trade payables

The following represents an analysis of the maturity of trade payables:

	2020	2019
Less than 30 days past billing date	\$ 252,413	\$ 203,143
31 to 90 days past billing date	25,683	13,259
Over 90 days past billing date	489,853	781,230
	<u>\$ 767,949</u>	<u>\$ 997,632</u>

As at October 31, 2020, trade payables include \$367,418 (2019 - \$573,206) of invoices which the Company has disputed and/or are stale-dated. The Company does not anticipate that it will be required to discharge such amounts.

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20. Financial risk management (continued)

(c) Liquidity risk (continued)

(ii) Convertible debentures and derivative liabilities

The following represents an analysis of the maturity of the convertible debentures and derivative liabilities:

	2020		2019	
	Convertible debentures	Derivative liabilities	Convertible debentures	Derivative liabilities
Less than three months	\$ 1,335,853	\$ 149,827	\$ 754,799	\$ 75,528
Three to six months	806,477	190,055	1,168,349	71,326
Six to twelve months	939,188	193,680	675,926	618,571
	<u>\$ 3,081,518</u>	<u>\$ 533,562</u>	<u>\$ 2,599,074</u>	<u>\$ 765,425</u>

(d) Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash and other receivables. The maximum exposure to credit risk is the carrying value of these financial assets, which amounted to \$213,695 as at October 31, 2020 (2019 - \$49,236).

Cash of \$191,479 as at October 31, 2020 (2019 - \$46,056) is held with central banks and financial institution counterparties that are highly rated. The Company has assessed no significant change in credit risk and an insignificant loss allowance, which was not recognized in these consolidated financial statements.

21. Fair value hierarchy

Assets and liabilities recorded at fair value in the consolidated statements of financial position are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 - valuation based on quoted prices (unadjusted) in active markets for identical assets and liabilities. There are no assets or liabilities in this category in these consolidated financial statements.

Level 2 - valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. In these consolidated financial statements, derivative liabilities are included in this category.

Level 3 - valuation techniques using the inputs for the asset or liability that are not based on observable market data. There are no assets or liabilities in this category in these consolidated financial statements.

The Company's policy for determining when transfers between levels of fair value hierarchy occur is based on the date of the event or changes in circumstances that caused the transfer. During the years ended October 31, 2020 and 2019, there were no transfers between levels.

22. Capital risk management

The Company's objectives when managing capital are to (i) maintain its ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders, (ii) ensure it has sufficient cash resources to further develop and market its technologies and (iii) maintain its ongoing operations. The Company defines its capital as its net assets, total assets less total liabilities. In order to secure the additional capital necessary to pursue these objectives, the Company may attempt to raise additional funds through the issuance of equity or convertible debentures or by securing strategic partners. The Company is not subject to externally imposed capital requirements and there has been no change with respect to the overall capital risk management strategy during the year ended October 31, 2020.

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23. Subsequent events

Subsequent to October 31, 2020:

- (a) The Company secured seven (7) private placements with investors consisting of common shares with no warrants pursuant to prospectus and registrations set forth in applicable securities law. It realized net proceeds of \$46,200 CDN and \$60,000 USD and issued a total of 3,542,223 common shares.
- (b) The Company settled interest debt of \$204,233 CDN and \$30,200 USD with the issuance of 6,953,755 common shares.
- (c) The Company repaid \$25,000 CDN of convertible debentures. It also converted \$40,000 CDN and \$111,520 USD of convertible debentures through the issuance of 3,712,672 common shares.
- (d) The Company extended convertible debentures that were within 3 months of maturity date from October 31, 2020. Extension terms ranged from three (3) months to nine (9) months.
- (e) The Company secured \$52,000 in convertible debentures with a 12 month term and conversion features which become effective six months after initiation date.
- (f) On November 13, 2020, the Company issued 6.5 million common stock options to directors, officers, employees and one consultant at a strike price of \$0.05 USD (\$0.07 CDN) per share. These stock options vested in full immediately upon issuance and have a 5 year term, expiring on November 13, 2025, if unexercised by that date.
- (g) The Company received an additional \$20,000 CDN (\$15,125 USD) loan under the Canadian government's CEBA loan program under the same terms as the original loan of \$40,000 secured in April 2020 (Note 10).
- (h) With respect to the Company's litigation with Mr Van Fleet (Note 19(b)), the court ultimately extended his time to January 11, 2021 to submit opposition to the Company's motion to dismiss Mr Van Fleet's claims. The court also extended the deadline for him to submit his reply papers to January 20, 2021. Mr Van Fleet has failed to reply to the court within the prescribed timelines that the court set out and the Company's motion to strike his claims is unopposed. The Company is currently pursuing potential damage claims against Mr. Van Fleet.